5. PROMOTING HIGH QUALITY SEEDLING PRODUCTION THROUGH LGU-BASED NURSERY ACCREDITATION: OPPORTUNITIES AND CHALLENGES

Eduardo Mangaoang, Nestor Gregorio, Herville Pajaron, Rodolfo Baldoza and Rotacio Gravoso

Low quality of planting stock is a widely recognized problem for establishing timber plantations and land rehabilitation in the Philippines, and nursery accreditation for adoption of best management seedling production has been identified as a critical step towards overcoming this problem. An LGU-based nursery accreditation and seedling certification system has been trialled in the Palompon Local Government Unit (LGU) in Leyte, with the support of the ACIAR seedling enhancement project and the Development Bank of the Philippines watershed rehabilitation project. This initiative has required community organizing, setting up an accreditation standard and protocol, on-site training, and establishing a nursery accreditation team. Further challenges are expected in implementation of the accreditation scheme, for example relating to financial management and resource mobilization in local nurseries, sourcing of high quality seeds and wildlings, and establishing market linkages for high quality planting stock.

BACKGROUND

Successful conservation and forest regeneration activities have always required the use of reproductive materials that meet appropriate genetic, morphological and physiological quality standards (Karrfalt 2003). Experience shows that survival and growth of planted trees diminish in direct proportion to decreases in seedling quality. In the Philippines, standards for planting stock of fruit trees have been formalized as in the seedling certification and nursery accreditation policy of the Bureau of Plant Industry (BPI) of the Department of Agriculture (DA) (Mangaoang 2010). For forest seedlings, however, there has to date not been any formalized standards for planting stock. The national policy on forest nursery accreditation and planting stock certification of the Department of Environment and Natural Resources (DENR) (Florido 2010), for which the ACIAR Seedling Enhancement Project provided a major contribution, has been created and approved but its implementation still remains to be seen. Up till now, forest seedling producers and users have set specifications for planting stocks informally. This informal process is based on the best judgment of seedling producers or recommendations by experts which more often than not results in differences in opinion with regard to seedling cultural practices, seed transfer guidelines and seedling morphological standards (Karrfalt 2003). As a consequence, forest nurseries are being operated by people without experience of best nursery practices and without formal standards to guide their work and thus production of low quality planting stock still proliferates. This has been a factor in most of the failures in the reforestation efforts in the Philippines.

Efforts to implement effectively, at the earliest time possible, the newly created government policy on forest seedling certification and nursery accreditation are urgently required to at least provide a formal minimum standard for forest tree seedlings. Karrfalt (2003) reiterated

that without standards for planting stocks and nursery practices the general public would have frustrating experiences of, or become critical towards, forestry practices. Accreditation of forest nurseries and certification of planting stock can serve as a means of educating the public, landowners, nursery operators and those planning to engage in the nursery business. It will also allow forest managers to have a moral high ground when forest harvest and reforestation activities are criticized. They will be able to justify that they have used high quality planting stock produced through scientifically sound and standard best practices.

Recognizing the need for the Philippines' nursery sector to have a nationally recognized tree seedling quality assurance system, the ACIAR Seedling Enhancement Project (ASEM/2006/091) was launched to help improve the economic efficiency and policy environment that will promote the production and use of high quality tree seedlings for reforestation and related activities (Herbohn et al 2010). As part of the project's action-research activities, pilot testing of nursery accreditation and seedling certification policy was conducted in three municipalities in Leyte. This paper presents the experiences in the creation and implementation of a LGU-based nursery accreditation and seedling certification policy in the Municipality of Palompon, Leyte, Philippines. Specifically, the processes and arrangements involved in the crafting and formalization of the local ordinance on nursery accreditation and seedling certification are reported, and the successes and opportunities gained, as well as the challenges, issues and concerns related to policy implementation are examined.

NURSERY ACCREDITATION CONCEPTS AND PRINCIPLES

Accreditation has been defined as a process in which certification of competency, authority, or credibility is presented (Wikipedia 2010). Similar to certification, registration and licensing, accreditation indicates specified level of skill, knowledge, ability or quality (Karrfalt 2003). It also means the authority granted to an entity to conduct particular activities or produce a particular product. A nursery accreditation scheme is a means of identifying nurseries which adopt nursery best practices in their production systems, and produce consistent quality products. Best practice refers to good hygiene to minimize pests and diseases, good plant management to produce vigorous planting stocks, and professional operation and management to provide high quality products.

Building-up a *system* is a requisite to nursery accreditation. This entails establishing an accrediting authority that will create and implement accreditation standards. Another aspect of the accreditation process is that it must not be burdensome, financially or administratively (Karrfalt 2003). The accreditation process must help communicate to workers and successors how to successfully and efficiently run a nursery. A good accreditation standard must be able to outline procedures in a simple and general way so that an individual operator is able to adapt a standard that fits the particular conditions of an individual nursery. Karrfalt (2003) also emphasized that affordability is necessary in order to include as many nurseries as possible so that an industry-wide standard can be achieved. The key principle is that nursery accreditation must have meaning to both the buyers and users of planting materials, and that the materials purchased are adequate for successful regeneration that benefits the people and the environment for the longest term possible.

THE LEYTE LGU-BASED NURSERY ACCREDITATION EXPERIENCE

The LGU-based nursery accreditation and seedling certification policy was created and implemented as a partnership initiative of the ACIAR Seedling Enhancement Project and the Local Government Unit (LGU) of Palompon in view of the need to locally meet the demand of a watershed rehabilitation project funded by the Development Bank of the Philippines (DBP), for high quality planting stock of forest trees. The DBP-funded project requires that planting stocks for watershed rehabilitation shall be procured from DBP-accredited nurseries

only to assure that the materials are of high quality and would have high survival rate when planted in the field (DBP 2004). The development of the LGU-based nursery accreditation and seedling certification system involved various processes and arrangements as discussed below.

Provision of On-site Seminars and Training

A series of seminars and training events were conducted by the ACIAR Q-Seedling (Quality Seedling) Project team exclusively for the LGU technical staff and project farmer-participants of the DBP-funded forest project on watershed rehabilitation covering five upland barangays within the headwaters of Palompon Watershed. The main intent has been to build up the farmers' awareness and interest in nursery best practices and production of high quality seedlings. The training was intended to improve the co-operators' knowledge and capacity to perform nursery best practices and producing high quality planting stock. The seminars and training conducted paved the way for the establishment of the Municipal Model Q-Seedling Nursery, five Barangay Q-Seedling Nurseries, and two individual private nurseries. These nurseries eventually became the recognized source of high quality planting stock of forest tree seedlings by the DBP Forest Project.

Community Organizing and Provision of Technical Support

A crucial part of promoting nursery best practices and high quality seedling production is community organizing work where the DBP Forest Project co-operators in every project barangay have been grouped together, organized and encouraged to participate in the planning and establishment of their barangay nursery and production of quality seedlings following the ACIAR Q-seedling technology. The provision of technical assistance by the ACIAR Q-Seedling Project in partnership with LGU-Palompon in the procurement of seeds and wildlings and other materials needed for seedling production boosted the interest of the farmer-co-operators to engage in high quality seedling production. Regular visitation by the LGU Environment Unit staff to established Q-seedling nurseries has been proven to effectively raise the local nursery operators' competence in producing high quality planting stock.

Setting-up an Accreditation Standard and Protocol

The ACIAR Q-seedling project team, with the participation of the LGU-Palompon environment team, developed the guidelines for nursery accreditation and seedling certification which are intended for adoption and implementation by the Municipality of Palompon. The development process went through a series of meetings and workshops leading to the drafting of the accreditation guidelines. The proposed accreditation guidelines were then presented for discussion to the *Sangguniang Bayan* (SB*)* of Palompon, the local and official policy-making body of the municipality.

After a thorough discussion with the SB headed by the vice-mayor as the presiding officer*,* the local policy-making body assigned the task to the SB Committee for Environment to review and polish the draft guidelines for another set of presentation before its approval by the SB body. Upon approval, a Municipal Ordinance was then formalized adopting the nursery accreditation and seedling certification guidelines. The Municipal Ordinance on nursery accreditation and seedling certification was formally presented to a public hearing after which the effectivity of its implementation was formally declared by the SB*.*

Disseminating Nursery Accreditation Standard and Processes

Recognizing the importance of public awareness on the newly implemented nursery accreditation and seedling certification policy of the LGU, a team composed of the LGU-Environment staff and the ACIAR Q-seedling researchers worked together in conducting an information, education and communication campaign (IEC). Seminars were conducted, and information materials including posters and extension booklets developed and disseminated within local communities to keep them fully aware and better able to understand the contents, conditions and processes involved as stated in the local nursery accreditation ordinance.

Formation of LGU-based nursery Accrediting Team and Nursery Accreditation

The implementation of the Municipal Ordinance on nursery accreditation and seedling certification was piloted within the established barangay nurseries in five barangays covered by the DBP Forest Project. The intent has been to validate the qualification of these nurseries as a recognized source of planting stocks of forest tree seedlings for the DBP Forest Project on watershed rehabilitation. The DBP Forest Project management has recognized the expertise of the VSU-ACIAR Q-Seedling Project team and has been authorized as the accrediting body to local nurseries that are intending to supply the planting stock requirement of the DBP Forest Project.

Membership of the accrediting body includes the ACIAR Q-Seedling Project leader and the LGU-Municipal Environment and Natural Resources Officer (MENRO) as co-chairs, with members coming from academe (at the Visayas State University), the Community Environment and Natural Resources Office (CENRO), the Department of Environment and Natural Resources (DENR), and the private sector (Palompon LGU 2009). Field visits and evaluation in local nurseries were conducted by the accrediting team after which nursery accreditation certificates were issued by the VSU-ACIAR Q-Seedling Project to those who were able to meet the official accreditation standard. Advice and recommendations were provided by the team to those who were not able to meet the standard.

OPPORTUNITIES AND CHALLENGES

The implementation of nursery accreditation and seedling certification on a pilot scale in the Municipality of Palompon has gained a high level of success as evidenced by the local peoples' improved awareness and appreciation of the production and use of high quality planting stock, the adoption of nursery best practices, and the transformed science-based image of some local nurseries. This can be attributed to a number of timely major opportunities, including supportive LGU officials; capable and hardworking LGU-Environment staff; active participation of local community organizations, schools and private individuals; presence of DBP Forest Project and assistance of the ACIAR Q-Seedling Project.

Looking forward, the future of the local nurseries, especially those that have been accredited, will present challenges that are essentially critical for the sustainability of local nurseries particularly those that are managed by barangays, local interest groups and peoples' organizations. Such challenges relate to financial management and resource mobilization in local nurseries, sourcing of high quality seeds and wildlings, sufficient production capacity given limited capital investment, future market links for high grade products, building sound and functional partnership with DENR, and the changing local leadership at both barangay and municipal levels. These identified challenges need to be considered in framing up development alternatives that would complement the successful

implementation of policies related to nursery accreditation and seedling certification on both the local and national scale.

CONCLUDING REMARKS

The LGU-Palompon experience exemplifies real ground-based evidence conveying that nursery accreditation and seedling certification promote the production and use of only high quality planting stock in reforestation and related activities. Nursery accreditation is, however, not the only aspect to consider if it is to uphold its main goal of promoting and making part of the forestry culture the production and use of only high quality tree seedlings in forest rehabilitation and tree farming. The attributing opportunities to success and the challenges posted above are encouraging pointers to consider in crafting a set of wholesome and effective strategies that will ensure the realization of what nursery accreditation and seedling certification are intended for.

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